

**REMARKS**

**STATUS OF THE CLAIMS:**

Claims 1-21, 27-31, 37-41, 47-51, 57-61, 67-71, 77-81, 87-89 and 96-99 are pending. Claims 8-10, 13-15, and 96-99 have been withdrawn. Applicants gratefully acknowledge that the Examiner has found claims 20, 21, 27-31, 37-41, 47-51, 57-60, 67-71, 77-81 and 87-89 to be free of the prior art and in condition for allowance.

Claims 1, 3 and 11 have been amended to more particularly point out the invention. The amendment to claim 1 is supported in the specification on page 16, lines 2-4; lines 12-14; lines 18-20; and lines 24-26; and page 17, lines 1-2 and the sequence listing submitted with the specification. The amendment to claim 3 is supported in the specification on page 16, lines 2-4; lines 12-14; lines 18-20; and lines 24-26; and page 17, lines 1-2. Support for the amendment to claim 11 is found in the specification on page 16, lines 2-4; lines 12-14; lines 18-20; and lines 24-26; and page 17, lines 1-2. Claims 60 and 61 have been amended to correct typographical errors. Support for these amendments is found in the specification on page 11, lines 5-17. A typographical error has been corrected in claim 40. Support for this amendment is found in the specification on page 9, lines 14-15. Lastly, a comma has been added to the following claims to correct a typographical error: 2-6, 16, 17, 19, 21, 31, 41, 51, 71 and 81.

### **Objections to the Claims**

The Examiner alleged that the sequence recited in claim 1 was not present in the sequence listing. Without conceding the correctness of the objection, and for the sole purpose of expediting prosecution, Applicants have amended claim 1, to recite specific sequences from the sequence listing.

### **Indefiniteness**

Claims 3 and 61 stand rejected for alleged indefiniteness under 35 U.S.C. §112 second paragraph. The Office alleges that claim 3 is indefinite because it recites a full length mocrhagin protein, but depends on claim 1, which recites a mature mocrhagin protein. Without conceding the correctness of the objection, and for the sole purpose of expediting prosecution, Applicants have amended claim 3, to recite "mature mocrhagin protein." Applicants believe the amendment obviates this rejection.

The Office alleges that claim 61 recites a SEQ ID NO which is outside the scope of the independent claim from which it depends. Applicants submit the rejection is based upon an inadvertent typographical error which has been corrected by this amendment, thus obviating the rejection.

### **Written Description**

Claims 1-7 and 16-19 stand rejected under 35 U.S.C. §112 second paragraph for allegedly failing to comply with the written description requirement. The Office alleges that claim 1 contains new matter and thus was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed. Claims 2-7

and 16-19 depend on claim 1. The Office alleges that the sequence recited in claim 1 is not supported by the specification as filed. Without conceding the correctness of the rejection, and for the sole purpose of expediting prosecution, Applicants have amended claim 1, to recite specific sequences from the sequence listing. Applicants believe this amendment obviates the rejection.

Claim 18 also stands rejected under 35 U.S.C. §112 second paragraph for allegedly failing to comply with the written description requirement. The Office alleges that claim 18 recites a sequence (SEQ ID NO: 2) not found in any representative species of mocrhagin protein and thus was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention at the time the application was filed. Without conceding the correctness of the rejection, and for the sole purpose of expediting prosecution, Applicants have canceled Claim 18, thus this rejection is obviated.

### **Enablement**

Claim 18 stands rejected under 35 U.S.C. §112 second paragraph as allegedly not enabled. The office alleges that the specification fails to teach a single representative species of a mocrhagin protein comprising SEQ ID NO: 2. Without conceding the correctness of the rejection, and for the sole purpose of expediting prosecution, Applicants have canceled Claim 18, thus this rejection is obviated.

### Anticipation

The Office maintains the anticipation rejection under 35 U.S.C. §102(b) with respect to claims 11 and 12 alleging that the product claimed by the described process is anticipated by U.S. Patent No. 5,659,018 (Berndt) or Deluca et al., 1995, *J. Biol. Chem.* 270(45):26734 (Deluca), although admitting that neither reference discloses the final mono S column purification step. The Office alleges there is no reason to believe the mono S column would exclude proteins described by Berndt and DeLuca and that Applicants bear the burden in establishing a difference between the claimed proteins and those described in the cited references. While disagreeing with the allegations raised by the Office, in order to expedite prosecution, Applicants have amended claim 11 to recite specific N terminal sequences of mature mocrhagin proteins not disclosed in either reference cited by the office. Claim 12 depends on claim 11.

The office is reminded that MPEP § 2131 states: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). 'The identical invention must be shown in as complete detail as is contained in the . . . claim'. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989)." The cited references do not meet this standard with respect to amended claim 11, and dependent claim 12. Applicants respectfully submit that the amendment has thus obviated the rejection.

## **Obviousness**

The Office also maintains the obviousness rejection under 35 U.S.C. §103 with respect to claims 11 and 12. The office cites the same 2 references cited for anticipation.

### **The Obviousness Standard**

MPEP § 2143 provides the standard required to establish a prima facie case of obviousness. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references combined) must teach or suggest all the claim limitations."

Amended claim 11 and its dependency claim 12, are not prima facie obvious because neither DeLuca or Berndt, alone or combined, teaches or suggests the mocarhagin proteins comprised of N terminal sequences recited in amended claim 11. Because the cited references do not teach or suggest all of the claim limitations of claims 11 and 12, the claims are not prima facie obvious.

Accordingly, Applicants submit the amendment to claim 11 has abrogated the obviousness rejection as well.

## **CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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